SpeedDome® Ultra VI

Features

NEW Wide Dynamic Range

- Compact, attractive, low-profile design
- Continuous autofocus
- Proportional high speed pan/tilt
- Advanced DSP CCD camera
- 23X optical zoom with 8X digital magnifier (184X total zoom)
- Zoom Adjusted Programming
- Dome-generated on-screen text
- Open shutter to capture images in very low light
- Up to eight privacy zones

NEW Infrared mode

- Supports SensorNet, RS422, and Manchester protocol
- Two mounting base options
- On-screen direction indicators
- Programmable Presets, Patterns and Area names
- 96 Presets (controller dependent)
- Alarm inputs and outputs
- Password protection and automatic home position
- Automatic proportional flip and Automatic Gain Control, line-lock and white balance (user selectable on/off)

The SpeedDome Ultra VI Advanced Programmable Dome Camera is a state-of-the-art programmable dome that incorporates all of the industry's cutting edge dome features. The dome's internal multi-protocol receiver enables the dome to be connected directly to a host of systems.

The camera's 23X optical zoom, combined with its 8X digital zoom, provides the power of 184X total zoom. And the sixth generation digital signal processing (DSP6) provides enhanced clarity, color and detail.

Privacy zones can be set up to prevent users from viewing sensitive areas. The direction indicators, which can be displayed on the monitor, denote the direction the dome is pointing, the direction in which it is moving, and the dome's azimuth (degree of tilt).

The dome supports up to 16 user-definable Areas. The dome's advanced alarm handling enables alarms to be processed internally by the dome, externally by the controller, or by both the dome and the controller. A "home position" feature allows users to establish a default view or pattern when no one is using it.

SpeedDome Ultra VI provides two "twist-lock" mounting base options. The standard base is the low-cost mounting base alternative; the I/O board base provides unsurpassed ease of installation, service, and maintenance. The SpeedDome Ultra Outdoor Housing is available to extend surveillance to outdoor environments.

The SpeedDome Ultra VI is a part of Sensormatic's Extended Security Technologies™ suite of integrated products and services.

Select from a choice of two mounting base options – an I/O base or a standard base

FEATURES

- NEW The camera's new 23X optical zoom is combined with an 8X digital magnifier, providing the power of 184X total zoom.
- NEW User selectable and automatic Wide Dynamic Range Modes.
- The dome's advanced low-light performance can clearly distinguish scenes and colors in lighting conditions as low as 0.5 lux.
- NEW Light levels as low as 0.01 lux in black & white Infrared mode and 0.009 lux in black & white mode with an open shutter.
- Privacy zones can be set up to prevent users from viewing sensitive areas. These privacy zones do not interfere with normal surveillance operations because they block out only the sensitive areas – even one as small as a combination lock – rather than the entire scene.
- The dome can display its direction indicators on the monitor. These indicators show users the direction the dome is currently pointing, as well as the direction in which it is moving. In addition, the direction indicators display the dome's azimuth (degree of tilt).
- Users can adjust the white balance manually or have the camera set it automatically. White balance is normally compensated for by the Automatic Tracing White Balance (ATW); however, in some lighting conditions it may be necessary to manually adjust the red and blue settings for optimal viewing.
- Users can set the Automatic Gain Control (AGC) on/off, and when it is turned off, users can manually set the gain to a desired dB level offset. AGC helps compensate for low lighting conditions that could result in poor video.
- Zoom Adjusted Program (ZAP) automatically adjusts pan and tilt speeds in proportion to zoom position, even at 184X magnification.
- Users can program zoom pause as well as maximum zoom stop settings. The default zoom pause is 35X and the default zoom stop is 92X.
- Focus Preference provides continuous autofocus with manual override.
- Users can set automatic dome flip on/off. With this feature turned on, the dome will automatically turn 180° when the camera tilts to its lower limits and stays in that position for a brief speed-proportional delay. With this feature turned off, users can still manually flip the dome.
- The dome supports up to three Patterns. Preprogrammed default spiral pan pattern ("apple peel") covers the entire viewing area.
- The dome supports up to 96 Presets when used with suitably equipped controllers.
- Alarms can be processed internally by the dome, externally by the controller, or by both the dome and the controller. Each of the dome's alarm inputs can automatically call a Preset or run a Pattern when the alarm is activated.
- The dome supports up to 16 Areas. Users can assign names (up to 19 characters long) and boundaries to these Areas; each Area can be a different size.
- "Home position" is the position that a dome returns to after it remains inactive for a specific period of time. This ensures that even when the dome is unattended, it will always be pointing to a key area of the facility. The user can define that Preset or Pattern, and also how long (from 1 to 60 minutes) before a dome returns to its home position.
- The dome generates on-screen text, including Dome, Area, Preset, Pattern, and Alarm names, as well as direction indicators. On-screen text also indicates zoom, focus, and iris status. All name information is user-definable and can be turned on or off at the user's discretion.
- The overlay text is user selectable: solid or translucent white, and with or without black outline.
- On-screen text supports six languages: English, French, Italian, Spanish, German and Portuguese.
- In order to prevent unauthorized use of the configuration utility, the dome offers password protection.
- The dome incorporates an innovative twist-lock release from the mounting base for easy installation and servicing.
- The fully isolated power supply helps eliminate ground loops.
- Users can set line-lock on or off. Line-lock is enabled to help prevent vertical rolling in multi-camera applications.
- Vertical sync phase adjustment is provided to help compensate for different phases of power when line-lock is enabled, making it ideal for single and multi-phase power installations.
- Sensing of 50/60 Hz line is automatic and does not require manual adjustment.
- Surge protection.

Allows daisy chain configuration of control wiring.
- For RS422: 10 domes at a maximum distance of 1 km (3000 ft) on, two 22 AWG shielded twisted pairs (STP).
- For SensorNet: 32 devices at a maximum distance of 1 Km (3000 ft) on one 22 AWG unshielded twisted pair (UTP).
- For Manchester: 3 domes at a maximum distance of 1500 meters (5000 ft) on one 18 AWG shielded twisted pair (STP).

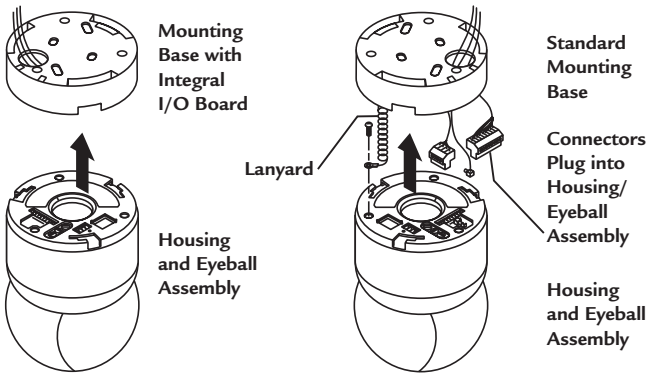
- The outstanding surveillance and performance features of the SpeedDome Ultra VI can be extended to outdoor environments via the SpeedDome Ultra Outdoor Housing. The outdoor housing, designed especially for the SpeedDome Ultra's small, unobtrusive size, makes it the perfect protection for the dome.

TWO MOUNTING BASE OPTIONS

The housing/eyeball assembly twist-locks into both mounting bases.

The **I/O board base** connects the housing/eyeball assembly in one step. Power, communication, and video cables (or composite cable) are connected one time to an I/O PC board in the mounting base, so the assembly is simply "twist-locked" onto the base. Service and maintenance are extremely easy and can be accomplished – without a ladder or lift – via the Installation/Removal Tool. The I/O board mounting base supports four alarm inputs and four alarm outputs.

The **standard base** connects the housing/eyeball assembly in two steps. First, power, communication, and video cables (or composite cable) are inserted through the base and attached to the assembly. Then the assembly is connected to the base. The standard mounting base supports one alarm input and one alarm output. The Installation/Removal Tool cannot be used to install this configuration.


Mounting Base with Integral I/O Board
Housing and Eyeball Assembly
Lanyard
Standard Mounting Base
Connectors Plug into Housing/ Eyeball Assembly
Housing and Eyeball Assembly

SpeedDome Ultra VI provides you with the power of a 184X Zoom with Continuous Autofocus

SPECIFICATIONS

Operational

Manual Pan/Tilt Speed	1° to 100° per second (based on zoom position)
Preset Pan/Tilt Speed	220° per second, maximum
Pan Travel	360° continuous
Tilt Travel	105°
Pan/Tilt Accuracy	± 0.5°
Zoom/Focus Accuracy	± 0.5%
Total Zoom	184X
Optical Zoom	23X
Digital Zoom	8X
Zoom Pause	23X or 35X (default)
Zoom Stop	Selectable: 23X, 35X (zoom pause default), 46X, 69X, 92X (zoom stop default), 115X, 138X, 161X, 184X
Programmable Presets	
VM16/ADTT16 (SensorNet)	96
VM16/ADTT16 (with Code Converter)	96
VM32/AD32 (SensorNet)	96
VM32/AD32 (with Code Converter)	96
AD2150 (Manchester)	64
AD2150 (RS422 via AD2083-02A)	16
VM96	Unlimited
AD168 (Manchester via CCM or AD2091)	64
AD168 (RS422 via CCM)	64
AD168 (RS422 via AD2083-02A)	16
AD168 (SensorNet via CCM)	64
MegaPower 1024 (Manchester via AD2091)	64
MegaPower 1024 (RS422 via AD2083-02A)	16
MegaPower 48 (SensorNet)	96
MegaPower 48 (Manchester)	64
MegaPower 48 (RS422)	96
Programmable Patterns	3
Programmable Areas	16
Programmable Privacy Zones	8
Direction Indicators	Yes
Auto Synchronization	
Line-Locked	Remote V-phase adjustment
Internal	Built-in sync generator
Address Range	
RS422	1-99
Manchester	1-64
SensorNet	1-255
Alarm Inputs	
With I/O Board	4 dry contacts/3.5 mA sink
Without I/O Board	1 dry contact/3.5 mA sink
Alarm Outputs	
With I/O Board (40 mA)	4 open-collector drivers at 12 VDC
Without I/O Board (40 mA)	1 open collector driver at 12 VDC
Menu Languages	English, French, German, Italian, Spanish, Portuguese

Electrical

Input Voltage	24 to 30 VAC, 50/60 Hz Class 2 LPS
Design Tolerance	20 to 36 VAC, 50/60 Hz
Power	16 watts
Power On In-Rush Current	1.5 amps
Surge Protection	
Video	Series resistor of 3.9 Ω; low-capacitance Zener suppressor of 6.5 V, 1500 watts
SensorNet/Manchester	Isolation transformer coupled, 2000 Vrms; PTC resettable fuse protects transformer; TVS rated at 5.6 V, 40 A, 0.1 joules; 10 kA impulse rated gas tube
RS422	Series resistors of 33 Ω; TVS rated at 5.6 V, 40 A, 0.1 joules
Alarm Input	Series resistors of 33 Ω; TVS rated at 5.6 V, 40 A, 0.1 joules
Power Line	TVS rated at 60 V, 250 A, 1.5 joules

Cameras

Imager	Interline transfer 1/4 inch CCD array
Scanning System	2:1 interlace
Video Output	1.0 Vp-p, 75 Ω composite
S/N Ratio	50 dB (typical)
Horizontal Resolution	470 lines at center
Minimum Illumination	Better than 1.0 lux (20 IRE, AGC) on .5 lux with open shutter .01 lux in black and white IR mode .009 lux in black and white mode with open shutter
White Balance	Through the Lens (TTL) Automatic Tracing White Balance (ATW)
NTSC	
Effective Pixels	768 (H) x 494 (V) pixels
Scanning	525 lines, 60 fields, 30 frames
Horizontal	15.734 kHz
Vertical	59.9 Hz
PAL	
Effective Pixels	752 (H) x 582 (V) pixels
Scanning	625 lines, 50 fields, 25 frames
Horizontal	15.625 kHz
Vertical	50 Hz

Lens

Design	Aspherical
Focal Length	3.6 to 82.8 mm
Aperture	f1.6
4 mm	54.0° (H) x 40.5° (V)
88 mm	2.5° (H) x 1.9° (V)

Field of View Formulas

Horizontal View = (.845 x A) / B, Vertical View = (.634 x A) / B

A = distance from camera in meters or feet, B = zoom power (e.g. 23X)

Mechanical

Height	205 mm (8 in)
Diameter	120 mm (4.7 in)
Weight	
Housing and Eyeball	1.18 kg (2.6 lbs)
Base (standard)	0.09 kg (0.20 lbs)
Base (with I/O board)	0.16 kg (0.35 lbs)

Sensormatic™
securing today's business™

SpeedDome Ultra VI's Wide Dynamic Range capability enables it to see images in virtual darkness

Environmental

Operating Temperature ..... -10° to 50°C (14° to 122°F)
Relative Humidity ..... 0 to 95% (non-condensing)
Storage Temperature ..... -20° to 65°C (-4° to 149°F)

Regulatory

Emissions ..... FCC: 47 CFR Part 15, Subpart B Class A
CE: EN55022 Class B
CE: EN6100-3-2
CE: EN6100-3-3
AS/NZS 3548, Class A
CISPR22
ICES-003
Immunity ..... CE: EN50130-4
Safety ..... UL: UL1950
cUL: CSA 22.2 No. 950
CE: EN60950, IEC950

Product Codes

Housing/Eyeball Assembly Without Mounting Base
- Color NTSC (black camera body) RAS816LS
- Color NTSC (white camera body) RAS816WLS
- Color PAL (black camera body) RAS816LS-1

Mounting Base Without Housing/Eyeball Assembly
- Standard Base (black base) ..... RUPTB
- Standard Base (white base) ..... RUWPTB
- I/O Board Base (black base) ..... RUIOB
- I/O Board Base (white base) ..... RUWIOB

The dome can also be ordered pre-configured with the mounting base of preference.

Dome With Standard Base
- Color NTSC (black assembly & base) RAS816LSP
- Color NTSC (white assembly & base) RAS816WLSP
- Color PAL (black assembly & base) RAS816LSP-1

Dome With I/O Board Base
- Color NTSC (black assembly & base) RAS816LSI
- Color NTSC (white assembly & base) RAS816WLSI
- Color PAL (black assembly & base) RAS816LSI-1

Options

Optional Bubbles for Top Hat Mount
- RUCLR ..... Clear Bubble (f1.0)
- RUSLV ..... Silver Bubble (f1.5 - f2.0)
- RUSMK ..... Smoked Bubble (f1.0)
- RUGLD ..... Gold Bubble (f1.5 - f2.0)

Note: Bubble diameter = 176 mm (6.93 in); bubble depth = 86.5 mm (3.4 in); bubble weight = 4.4 oz (with trim ring).

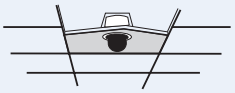
Installation and Removal Accessory
- RHIRT ..... Installation and Removal Tool

MOUNTS AND ADAPTERS

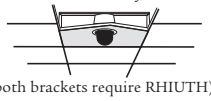
For outdoor mounting structures, refer to the "SpeedDome Ultra Series Outdoor Housing" data sheet. The "Dome Mounts" data sheet contains detailed information, e.g. dimensions, weight, materials, etc., for all outdoor mounts and adapters.

RHIUTH
Top Hat housing with trim ring

RHIUHC
Hard ceiling bracket (requires RHIUTH)

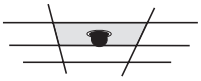


RHIUFB Fixed bracket
RHIUAB Adjustable bracket

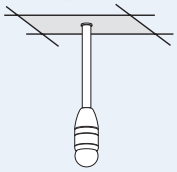


(both brackets require RHIUTH)

RHIU2X2M
2' x 2' Tile mount (Top Hat included)



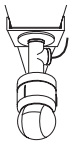
RHIU2X2P*
2' x 2' Tile pendant mount



RHINCM*
Ceiling pendant mount
(this mounting assembly includes both a ceiling flange and a pendant base)

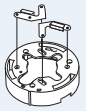
RHIUPNDT*
Ceiling pendant mount
(this mounting assembly does not include a ceiling flange; it only includes a pendant base)

RHIUIBM*
I-Beam mount assembly

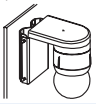


RHIUIB*
I-Beam clamp

RHIUTBAR
T-Bar mount

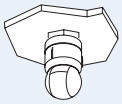


RHIUCM*
Wall/corner mount



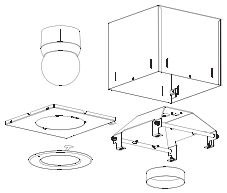
RHIULWM*
Long 0.6 m (24 in) wall/corner mount

RHIU3X3*/RHIU4X4*
3" x 3"/4" x 4" mounting plate



RHSDA
SpeedDome housing adapter

ADCBRD
Cobra Dome Back Box adapter bracket



* RHIUTH Top Hat housing/dome assembly also mounts to structure.

Product specifications and availability subject to change without notice.
Certain product names mentioned herein may be trade names and/or registered trademarks of other companies.

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